

What is claimed is:

1. A device for sampling a body fluid, said device comprising a housing and a lancet cartridge removably installed within the housing, the device further comprising a drive mechanism within the housing for propelling an active lancet of the lancet cartridge from a retracted position fully within the lancet cartridge to an extended position wherein at least a tip portion of the active lancet projects outward from the lancet cartridge, said drive mechanism comprising a contact face for imparting motion to the active lancet without positive attachment to the lancet cartridge.
2. The sampling device of Claim 1, wherein the contact face of the drive mechanism comprises an angled female recess, and the lancet cartridge has at least one complementary angled male profile for alignment within the angled female recess.
3. The sampling device of Claim 1, wherein the housing comprises a resilient portion having a protuberance thereon for engaging at least one recess in the lancet cartridge to index advancement of the lancet cartridge within the housing.
4. A device for sampling a body fluid, said device comprising a housing having an opening therein, a lancet, a drive mechanism within the housing for propelling the lancet along a lancing path, from a retracted position fully within the lancet cartridge to an extended position wherein at least a tip portion of the lancet projects through the opening in the housing, and a dampening fin adjacent the opening for dampening the motion of the lancet upon contact of the lancet against the dampening fin in the extended position.
5. The sampling device of Claim 4, wherein the housing further comprises a pair of flanges positioned on opposite sides of the opening, said flanges having inwardly inclined faces for guiding the lancet along the lancing path.

6. A device for sampling a body fluid, said device comprising a housing and a lancet cartridge removably installed within the housing, said housing comprising an internal shelf, and said lancet cartridge comprising at least one hook, said at least one hook engaging the internal shelf of the housing to prevent opening of the housing when the lancet cartridge is in a first position, and said at least one hook releasing the internal shelf of the housing to permit opening of the housing when the lancet cartridge is in a second position.

7. A device for sampling a body fluid, said device comprising a housing and a plurality of lancets contained within said housing, said plurality of lancets being interconnected by a flexible web.

8. The sampling device of Claim 7, further comprising a plurality of alignment tabs, each alignment tab associated with a respective one of the plurality of lancets, and wherein the housing comprises a channel in which the alignment tabs are received.

9. The sampling device of Claim 8, wherein the plurality of lancets are arranged in a generally circular array, and wherein the channel comprises a ring-shaped channel portion and an extension channel portion extending radially from the ring-shaped channel portion.

10. A device for sampling a body fluid, said device comprising:

a housing having an arm with a wedge-shaped profile;

at least one lancet, each lancet having a body portion, a sharp tip extending from the body portion, and an endcap covering the sharp tip; and

an advancing mechanism for advancing the at least one lancet into contact with the arm of the housing to drive the wedge-shaped profile between the body portion of the lancet and the endcap, and thereby separate the endcap from the body portion of the lancet.

11. The sampling device of Claim 10, wherein the arm further comprises a ramp, and wherein the advancing mechanism drives the separated endcap along the ramp and into a well for retaining the endcap.
12. A lancet cassette for removable installation within a sampling device, said lancet cassette comprising a plurality of lancets and a flexible web interconnecting the plurality of lancets.
13. The lancet cassette of Claim 12, wherein the plurality of lancets are arranged in a circular array with sharp lancet tips thereof oriented radially outwardly.
14. The lancet cassette of Claim 13, further comprising a plurality of alignment tabs, each alignment tab attached to an inner end of a respective one of the plurality of lancets.
15. The lancet cassette of Claim 14, wherein the plurality of lancets are positioned on an annular carrier disk having a central opening through which the plurality of alignment tabs project.
16. The lancet cassette of Claim 12, further comprising at least one hook for engagement with an anti-tamper shelf portion of the sampling device.
17. The lancet cassette of Claim 12, wherein each lancet comprises a removable protective endcap, and wherein the lancet cassette further comprises a well for receiving and retaining the endcap out of a path of travel of the lancet upon removal from the lancet.
18. The lancet cassette of Claim 12, further comprising a lower face having surface features for engaging an advancing mechanism of the sampling device.
19. The lancet cassette of Claim 12, further comprising an outer circumferential rim having a plurality of detents formed therein for indexing engagement with a cooperating protuberance of the sampling device.

20. A device for sampling a body fluid, said device comprising:

an outer housing having first and second portions hingedly connected to one another, an opening, and an arm having a wedge-shaped profile projecting inwardly from one of the first and second portions;

a lancet cassette for removable installation within the outer housing, the lancet cassette comprising a plurality of lancets arranged in a circular array, and a flexible web interconnecting the plurality of lancets, each lancet comprising a lancet body, a sharp tip, and a protective endcap removably positioned over the sharp tip;

a drive mechanism within the housing for propelling an active lancet along a lancing path, from a retracted position fully within the lancet cartridge to an extended position wherein at least a tip portion of the active lancet projects through the opening in the housing; and

an advancing mechanism for sequentially advancing each of the plurality of lancets into an active position in the housing, wherein the endcap of the active lancet is separated from the body portion thereof as it enters the active position by contact with the wedge-shaped profile.

21. The sampling device of Claim 20, further comprising a dampening fin adjacent the opening in the housing for contact with the active lancet in its extended position.

22. The sampling device of Claim 20, further comprising a guide channel defined between a pair of flanges positioned on opposite sides of the opening through the outer housing.